Juvenile Services Report

VIRGINIA DEPARTMENT OF CRIMINAL JUSTICE SERVICES • JUVENILE JUSTICE SERVICES SECTION • 805 EAST BROAD STREET • RICHMOND, VA 23219

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The Virginia Department of Criminal Justice Services (DCJS) provides programs and initiatives designed to improve the functioning and effectiveness of the criminal justice system. DCJS is unique in state government because of its system-wide perspective on criminal justice. While it directs programs and services to each component of the system, it has an overarching responsibility to view the system as a whole, to understand how changes in one part of criminal justice will affect other parts, and to work to ensure that plans and programs are comprehensive.

The Juvenile Services Section of DCJS is the Unit primarily responsible for the Department's programs and services for children and youth. It is involved in planning, policy development, and funding of juvenile justice and delinquency prevention initiatives provided through federal or state resources.

This Report summarizes research about risk and protective factors for children. It also contains Virginia data relevant to the issues raised in the research. The Report was presented to the Virginia Juvenile Justice and Delinquency Prevention Advisory Committee in June, 2001 as part of a process designed to establish priorities for an upcoming competitive grant cycle. Grants provided to localities fund programs for juveniles who have had contact with the juvenile justice system.

We hope that you find it informative and that it provokes discussion and thought in your community.

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Risk and Protective Factors for Delinquency

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DESCRIPTION OF THE PROBLEM

In Virginia, there is evidence that more very young offenders than before are involved in the juvenile justice system. This increase is evident in complaints about both minor and major offenses. Minor offenses such as curfew violations, runaway complaints, and truancy are considered offenses because of the child status of the offender and are thus referred to as *status offenses*. The data show that complaints for status offenses of children aged 10 and under have increased sixfold from 1995 to 2000. An increasing pattern is also shown for more serious delinquent offenses. The number of children under aged 13 brought before the court with delinquent complaints has increased by 55% in six years.

Thus, in Virginia, we are seeing more very young children in contact with the juvenile justice system. For the most part, these are children who have not yet been confined in juvenile secure detention or correctional facilities. However, they are at risk for future, more serious, delinquent behavior. The risk of later serious, violent, and chronic offending increases by a factor of two to three among juveniles who start offending before age 13 compared to those who start offending at a later age (Loeber, 2000). This report outlines risk and protective factors that may apply to these children. References are provided throughout and a brief list of suggested readings is given at the end for readers interested in pursuing the topic.

Risk factors are hazards that increase the likelihood of a negative outcome such as delinquent behavior. The research indicating that multiple risk factors increase the probability of delinquency is quite conclusive, although some factors are better predictors than others (Hawkins *et al.*, 2000). In a 30-year longitudinal study, two-thirds of children with four or more risk factors by age 2 developed serious learning or behavior problems by age 10 and had mental health problems, delinquency records and/or teenage pregnancies by age 18 (Werner & Smith, 1992). Yet, even if multiple risk factors are present, some children are resilient (Werner, 1993). Protective factors modify or buffer an individual's reaction to situations that would ordinarily lead to a negative outcome. The factors that protect children are of considerable interest. In this report, descriptions of risk factors are presented first, along with data relevant to Virginia; that section is followed by a brief description of protective factors.

RISK FACTORS

Risk factors can be divided into three categories: individual, family/social/economic, and educational. The risk factors that are the most important predictors vary, depending on the age of the child. Much of the information reported in this section about risk factors is taken from research done by the Office of Juvenile Justice and Delinquency Prevention, U.S. Department of Justice (Hawkins *et al.*, 2000; Loeber & Farrington, 1998).

Individual Factors	Family/Social/ Economic Factors	Educational Factors
• Early pattern of bad behavior and aggression • Abuses alcohol or drugs • Hyperactivity or attention disorders • Uses a weapon	• Lack of social ties • Gang membership • Antisocial parents • Low socioeconomic status • History of being abused	• Low academic performance • Low commitment to schooling • Low educational aspirations

INDIVIDUAL FACTORS

There are a variety of factors individual to a child which are known risks for delinquency. For young children, aged 6-11, the two best predictors of later violent or serious delinquency, across all categories, are an early pattern of bad behavior and aggression and early abuse of drugs or alcohol. Other individual factors such as hyperactivity or attention disorders and use of a weapon are important but less reliable predictors.

EARLY PATTERN OF BAD BEHAVIOR & AGGRESSION

An early pattern of bad behavior and aggression is one of the more robust predictors of later delinquency. Statewide, it can be measured by age trends in court intake cases. Children may be brought to court intake by police, parents, social workers, school principals, or school attendance officers. Intake cases are classified as status offenses or delinquent offenses. Status offenses are offenses such as curfew violations, runaway complaints, and truancy which are considered offenses because of the age of the offender. The number of intake cases with only status complaints involving children aged 13 and under more than doubled in the period 1995 to 1998 (Virginia Department of Juvenile Justice)[1]. Examination of these data, shown in the leftmost

INTAKE—STATUS COMPLAINTS ONLY

	1995	1998	Change 95-98	2000	Change 95-00
Age 10 & Under	81	328	+305%	518	+540%
Age 11	107	156	+ 46%	233	+118%
Age 12	263	432	+ 64%	490	+ 86%
Age 13	577	877	+ 52%	959	+ 66%
Age 14 -17	7334	6789	-7%	7572	+ 3%

[1] *Intake data do not include Fairfax County. Also excluded are data for those aged 18 and over (1995: 5974 delinquent, 800 status complaints; 1998: 39 status complaints; 2000: 1281 delinquent, 55 status complaints) and age unknown data (1995: 2494 delinquent, 307 status complaints; 1998: 46 status complaints; 2000: 195 delinquent, 50 status complaints).*

columns of the data box, shows that the group aged 10 and under increased by over 300% from 1995 to 1998. This is in contrast to the pattern shown for older juveniles. Those aged 14-17 show a 7% decrease over the same time period. In 1999, the *Code of Virginia* was amended to require that each school go through a prescribed series of steps to handle truants. The intent of the law was to eliminate the practice of punishing truants by expulsion. The final step is a petition to court. In some localities, the result of the law has been a large increase in the number of truancy complaints petitioned to court. These increases are reflected in the data shown in the rightmost columns of the data box. Again, the increases are most prevalent for very young offenders.

Delinquent complaints against young offenders also show an increasing trend. These are criminal offenses. They range from minor offenses such as shoplifting to major offenses such as murder and manslaughter. Most are misdemeanor offenses. Of the felony offenses, most are property offenses rather than crimes against persons. For the group aged 13 and under, the number of complaints has increased by 55% and, as the data box shows, the increase is most notable for children aged 12 years. Comparatively, for juveniles aged 14 to 17, the number of delinquent complaints has increased by 27% over the same period. Overall, the data show that the number of complaints for both status offenses and delinquent offenses is increasing markedly for very young offenders.

INTAKE –DELINQUENT COMPLAINTS

	1995	2000	Change
Age 10 & Under	612	908	+48%
Age 11	680	1002	+47%
Age 12	1359	2395	+76%
Age 13	2978	4408	+48%
Age 14 - 17	31365	39921	+27%

Interestingly, arrest data show a pattern opposite to that shown for intake data. As shown in the data box, arrests have decreased for younger offenders and increased for older offenders. This disparity in the patterns of the data may be because more children are brought to court than are arrested. Children are brought to the court service unit by parents, social workers, and school officials, as well as by police after arrest.

DATA–ARRESTS

	1995	1998	Change
Age Under 10	1030	791	-23%
Age 10 -12	4449	4174	-6%
Age 13 -14	13375	12669	-5%
Age 15 - 17	36432	38450	+6%

EARLY ABUSE OF ALCOHOL OR DRUGS

For children aged 6-11, substance abuse is a relatively strong predictor of later violent or serious delinquency. In Virginia, the drug possession arrest rate per 100,000 juveniles varies from 0 per 100,000 in 33 localities to 549 per 100,000 in one locality. Over half of children in Virginia correctional institutions report a history of substance abuse (McGarvey & Waite, 1999).

DRUG POSSESSION ARREST RATES, 1998

0 per 100,000—22% of localities
1–50 per 100,000—22% of localities
51–100 per 100,000—18% of localities
101–200 per 100,000—21% of localities
> 200 per 100,000—17% of localities

Hyperactivity or Attention Disorders

Research suggests that hyperactivity or attention deficits increase the risk of later delinquent or violent behavior (Hawkins, *et al.,* 2000; Kelley, Loeber, Keenan, & DeLamatre, 1997). There are other indications that children who become delinquent have a high incidence of hyperactivity or attention disorder. In 1998, 26% of males and 16% of females admitted to Virginia juvenile correctional facilities had a history of medication with Ritalin (McGarvey & Waite, 1999), one of the drugs used commonly to treat attention deficit disorders.

Uses a Weapon

The rate of homicide, suicide and firearm-related deaths of children in the United States is much higher than that of other industrialized countries. A Centers for Disease Control report provides data concerning 2872 deaths of children under 15 years of age from 26 industrialized countries. As the data box shows, the rate of firearm-related deaths is 12 times higher in the United States than in the other 25 countries combined. The rate for Virginia (Office of the Chief Medical Examiner, 1998) is comparable to that of the United States.

Data—Rates of Firearm-Related Deaths per 100,000 Children

Virginia:
- 1.66 deaths

United States:
- 1.69 deaths

25 other industrialized countries combined:
- 0.14 deaths

Social/Family/Economic Factors

Social, family, and economic factors such as lack of social ties, gang membership, parental criminality, antisocial parents, low socioeconomic status, and a history of being abused may contribute to delinquency. As with the individual factors, some social/family/economic factors are more important than others. Age matters. In contrast to the younger group for which an early pattern of bad behavior and early use of alcohol or drugs are the most reliable predictors, for the 12-14 age group, the strongest predictors across all categories are lack of social ties and involvement with antisocial peers, both factors related to interpersonal relationships (Hawkins *et al.,* 2000).

Importance of Peer Groups

Peer groups are important in adolescence. Children who are not involved in conventional social activities and are unpopular at school have a higher risk of becoming violent. These children who are rejected by or unpopular with conventional social peers may turn to delinquent peer groups. Having delinquent friends increases the risk for later involvement in violence. However, gang membership increases the risk of violence beyond the risk posed by having delinquent peers. For example, in two longitudinal studies of children in Seattle and Rochester (see Battin-Pearson, Thornberry, Hawkins, & Krohn, 1998 for comparison), gang membership more than doubled the rate of violent offenses over having delinquent peers, whether for self-report or court-reported offenses. Patterns similar to violent offenses were shown for drug selling and substance abuse. One-third of youth in the Rochester sample were gang members but they accounted for 70-85 percent of serious or violent delinquent acts, and 70 percent of drug sales (Browning, Thornberry, & Porter, 1999). In Virginia, about half of localities report at least one youth gang in their vicinity (Virginia Dept. of Criminal Justice Services, Criminal Justice Research Center, 2000b).

Antisocial Parents

Parents and other adults provide models of acceptable behavior to children. Parents who have a history of criminal behavior, violence, or psychopathology are considered antisocial (Lipsey & Derzon, 1998). Parents who have engaged in criminal activity provide this model of behavior for their children. Parental criminality when children are age 14 more than doubles the risk for youth involvement in violence at age 18. As shown in the data box, self-report data from children confined in Virginia juvenile correctional facilities indicates that, for many, one or both of their parents has also been incarcerated (McGarvey & Waite, 1999). Thus, a large proportion of delinquent youth have parents who are or have been involved in criminal activities.

Data–Parental and Community Criminality

Juveniles in Correctional Facilities:

- 20% report father has been incarcerated;
- 12% of females, 8% of males report mother has been incarcerated.

Correlation of Adult/Juvenile Community Arrest Rates:

- 0.65

Another way of examining this risk factor is to look at correlations[2] between adult and juvenile arrest rates within a community. As would be expected, arrest rates vary from community to community. When adult and juvenile arrest rates in Virginia localities are correlated, the resulting correlation, 0.65, indicates that there is a statistical relationship between the rate of adult arrests in a community and the rate of juvenile arrests in that same community. In communities where adult arrest rates are high, juvenile arrest rates are more likely to be high than in communities where adult arrest rates are low.

Low Socioeconomic Status

Low socioeconomic status is a moderate predictor of later violent or serious delinquency for children aged 6-11. For older children, it is a poor predictor. For 1995, the U.S. Census Bureau defined the poverty threshold for a family of two adults and two children at $15,455. As the data box shows, the range of economic circumstances for children in Virginia localities in 1995 was tremendous, from 4% of children living below the poverty line in one locality to 42% of children living below the poverty line in another.

Data–Official Poverty

Children Living Below the Poverty Line:

21% of localities: 0–10% of children below
37% of localities: 11–20% of children below
30% of localities: 21–30% of children below
11% of localities: 31–40% of children below
1% of localities: > 40% of children below

Percentage of Births to Single Mothers

13% of localities: 1–20% of births to single moms
61% of localities: 21–40% of births to single moms
26% of localities: 41–60% of births to single moms
1% of localities: > 60% of births to single moms

Children born to single mothers are more likely to be poor. The data box shows variability among Virginia localities in the percentage of births to single mothers with a range from 10% to 69% (Action Alliance for Virginia's Children & Youth). For the State, the percentage is 29.3.

[2] *A correlation is a linear relationship between two variables. Positive correlations indicate that when the values of one variable rise, the values of the other variable will rise or that when the values of a variable decrease the values of the other variable will decrease predictably. Positive correlations range between 0 and 1.0. A perfect correlation, 1.0, is unusual.*

Many of these single mothers are adolescents. In Virginia localities, the rate of live births to adolescent mothers (age 10–19) ranges from 4.5/1000 female population to 60.7/1000 female population[3] (Virginia Department of Health). Eighty-three percent of adolescents who give birth are from households that are economically disadvantaged (Franklin, Corcoran, & Ayers-Lopez, 1997).

History of Abuse

A history of being abused or neglected is a known risk factor for children, particularly for more serious forms of delinquency (Kelly, Thornberry & Smith, 1997). For the State, the rate of founded child abuse cases[4] is 4.95 cases per 1000 juvenile population. There is considerable variability among Virginia localities. Three localities, for example, report no founded child abuse cases. But, as the data box shows, 3.7% of Virginia localities report a rate of over 14 cases per 1000 juvenile population. One locality reports a rate of 21.7 founded cases per 1000 juvenile population.

Data–Founded Child Abuse Cases Per 1000 Juvenile Population

Range: 0/1000 - 21.7/1000

Distribution:

- 51.6% of localities: 0– 4/1000
- 32.8% of localities: 5– 9/1000
- 11.9% of localities: 10–14/1000
- 3.7% of localities: >14/1000

School Factors

School-related experiences such as low academic performance, low commitment to schooling, and low educational aspirations are factors that put children at risk for delinquency. For children aged 12-14, school attitude and performance are moderate predictors of later violent or serious delinquency. For younger children, aged 6-11, they are poor predictors (Hawkins *et al.,* 2000). However, for children who are already at high risk, Werner (1993) found that effective reading skills by Grade 4 were one of the most potent predictors of successful adult adaptation. Such children profited from short-term remedial work in the first three grades.

Low Academic Performance

When academic performance is low, opportunities for future education and training are reduced and the risk of delinquency increases. The academic performance of students in Virginia varies depending on where they live, as shown in the data box. On a grade 9 national test of reading (Virginia Department of Education, 2000), public schools in Virginia localities ranked from the 34th percentile to the 81st percentile. Children in some localities did well; others did quite poorly.

National Rank for Public Schools in Virginia Localities on Grade 9 Reading Test

1% of localities: > 80th percentile rank
5% of localities: 71st–80th percentile rank
29% of localities: 61st–70th percentile rank
39% of localities: 51st–60th percentile rank
26% of localities: < 50th percentile rank

[3] *For children under aged 15, the population is the estimated female population aged 10–14. For the 15–19 year old group, the population is the estimated female population aged 15–19 (Virginia Department of Health).*

[4] *Rates were computed by the formula: [number of children abused (founded cases)/juvenile population]. The number of founded abuse cases was taken from the Virginia Department of Social Services web site: www.dss.state.va.us/pub/pdf/cps_98-99_child.pdf. The juvenile population was taken from the web site of the U.S. Census Bureau: www.census.gov/population/estimates/county/ca/cava99.txt.*

Low Commitment to Schooling

Truancy rates provide a measure of low commitment to schooling. In the 1999/2000 school year in Virginia public schools, the truancy rate for public school students ranged from 0/1000 students in over half of Virginia localities to 426/1000 students[5].

Truancy Rates per 1000 Students 1999/2000 School Year

0– 50 truants/1000 students:	54% of localities
51–100 truants/1000 students:	28% of localities
101–200 truants/1000 students:	12% of localities
> 200 truants/1000 students:	6% of localities

Low Educational Aspirations

One of the risk factors is low educational aspirations. These are children who do not dream of a better life through education. In Virginia, most localities have few or no dropouts in public schools prior to grade 9 (Virginia Department of Mental Health, Mental Retardation, & Substance Abuse Services, 2001). However, as the data box shows, in some localities more than 1 child per 100 drops out before grade 9 and in a few localities more than 3 drop out prior to grade 9. The range is from 0/1000 (55 localities) to 33/1000.

Early Dropout Rates per 1000 Students

0 dropouts:	42% of localities
>0-10 dropouts:	41% of localities
11-20 dropouts:	16% of localities
21-30 dropouts:	0% of localities
>30 dropouts:	2% of localities

Cognitive Functioning of Youth in Juvenile Correctional Institutions

The result of some or all of these school factors, and probably other factors as well, is shown by the cognitive functioning of youth in Virginia juvenile correctional facilities. Their mathematical, reading, and writing scores on standardized tests indicate that incarcerated youth function well below expected levels for children of their age (McGarvey & Waite, 1999)[6]. The data box shows writing scores. Half of youth in juvenile correctional facilities score more than 6 years below chronological age on tests of writing. Thus a 16-year old in a juvenile correctional facility would be scoring below expected levels for a 10-year old. A similar pattern of poor functioning was shown by children in a sample taken from a community population at an earlier stage of contact with the criminal justice system. Of 147 youth sampled for the Richmond Continuum Project, less than one-quarter were within 1.5 age-appropriate grade levels on tests of reading, spelling, and mathematics (Department of Criminal Justice Services, Criminal Justice Research Center, 2000a).

Data–Writing Scores for Juveniles in Correctional Facilities

50%–	> 6 years below chronological age
28%–	4–6 years below chronological age
15%–	1½–4 years below chronological age
7%–	< 1½ years below chronological age

[5] *Some of these rates are artificially inflated. For example, in one locality, children were counted as truant when they were removed from summer school, with parental permission.*

[6] *Data also available online in the Data Section, Virginia's Three-Year Plan under the Juvenile Justice and Delinquency Prevention Act, Virginia Department of Criminal Justice Services, Juvenile Services Section web site: www.dcjs.state.va.us/juvenile/resources.*

PROTECTIVE FACTORS

Protective factors are moderators of risk and adversity that enhance good outcomes. Like risk factors, protective factors can be categorized. For the purposes of this report, they have been categorized into individual, family, and school/community factors. The pioneering work on protective factors was done by Emmy Werner in her longitudinal study of 700 high-risk children from birth to adulthood on the island of Kauai (Werner, 1993, 2000, Werner & Smith, 1992). In Werner's study, 10% of the cohort who had experienced four or more risk factors before the age of 2 developed into competent, confident, and caring adults. These children were resilient despite multiple risk factors.

Individual Factors	Family/Social/ Economic Factors	School/Community Factors
• Strong attachment to a caregiver • Intellectual ability • Sociable • Reflective, not impulsive, cognitive style. • Ability to seek social support • Not narrowly sex-typed	• Maternal competence • Ties with alternative caregivers • Good socialization practices	• Friends/families of friends • Enjoyment of school • Teachers and mentors

Individual Factors

Most children identified as resilient have had the opportunity to form a close bond with a caring, supportive adult. The caregiver need not be a parent but can be a grandparent or other relative, a teacher, a mentor, or a volunteer (Kirby & Fraser, 1997; Werner, 2000). This person accepts the child unconditionally, regardless of their intelligence, appearance, or temperament. Werner found that every resilient child in her longitudinal study had at least one person in his or her life who accepted them unconditionally.

Intelligence, particularly communication, problem-solving and reading skills, is also associated with the ability to overcome adversity.

Other individual factors that are indicative of a positive temperament are important—the ability to elicit positive attention from others, and to ask for support when needed. Resilient children tend to be sociable, confident and have a sense of self-worth. They employ flexible coping strategies and are not narrowly sex typed. Their cognitive style is reflective rather than impulsive.

Family Factors

Maternal competence seems to be a powerful protective factor for children. It is usually measured as mother's educational level. Ties with alternative caregivers also seem to protect children. In the Kauai study, when a parent was absent, alcoholic, or mentally ill, other concerned adults, relatives, and neighbors served as protective buffers. Resilient children were able to recruit such surrogate parents actively.

Within the home, boys and girls respond to socialization practices differently. Resilient boys come from households where there is greater structure, rules, parental supervision, the availability of a male who serves as a role model, and encouragement of emotional expressiveness. Resilient girls come from households that combine an absence of overprotection, an emphasis on risk-taking and independence, and reliable emotional support from the primary caregiver.

Social/Community Factors

Resilient children enjoy school. Werner (2000) suggests that for resilient children with poor home environments, school may become a refuge. Like the home situation, for boys, a structured school environment with clearly defined and consistently enforced rules and responsibilities is associated with greater resilience.

Teachers or other mentors can have a significant effect on at-risk children. An evaluation of the Big Brother/Big Sister mentoring program showed noteworthy positive results. Compared to non-program youth, mentored youth were 46% less likely to initiate drug use, 27% less likely to initiate alcohol use, 32% less likely to hit someone, 37% less likely to skip class, 52% less likely to skip a day of school, and 37% less likely to lie to their parent (Grossman & Garry, 1997).

Resilient children seem to be well-liked by their playmates and classmates and to have one or more close friends. Association with friends and the parents of friends who come from stable families can help resilient children. They cannot, however, substitute for a close, stable relationship with at least one adult in the home or neighborhood.

CONCLUSION

Although children can cope with one or two risk factors, multiple factors are predictive of negative outcomes. Many of these risk factors for delinquency, discussed above, can be identified early in a child's life. The developmental pathways that lead to delinquency for boys have been identified also, along with the types of behavior that are typical within each pathway, and how those behaviors escalate (Kelley, Loeber, Keenan, & DeLamarte, 1997). From that research, it is clear that there is not just one pathway to delinquency; there are several. In recent years, much work has been done to develop and test successful intervention programs in communities around the United States. Effective intervention strategies address multiple risk factors and promote resiliency. Some of those programs are described in the references listed under ***Suggestions for Further Reading*** found on page 11.

REFERENCES

Action Alliance for Virginia's Children and Youth. (1999). *Kids count in Virginia: 1999 data book*. Richmond, VA: Action Alliance.

Battin-Pearson, S., Thornberry, T., Hawkins, J., & Krohn, M. (1998). *Gang membership, delinquent peers, and delinquent behavior.* Juvenile Justice Bulletin. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Browning, K., Thornberry, T., & Porter, P. (1999). *Highlights of findings from the Rochester youth development study.* Fact Sheet. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Franklin, C., Corcoran, J., & Ayers-Lopez, S. (1997). In M.W. Fraser (Ed.). *Risk and resilience in childhood*. Washington, DC: National Association of Social Workers (NASW) Press.

Grossman, J., & Garry, E. (1997). *Mentoring—A proven delinquency prevention strategy.* Juvenile Justice Bulletin. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Hawkins, J., Herrenkohl, D., Farrington, D., Brewer, D., Catalano, R., Harachi, T., & Cothern, L. (2000). *Predictors of youth violence*. Juvenile Justice Bulletin. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Kelley, B., Loeber, R., Keenan, K., & DeLamatre, M. (1997). *Developmental pathways in boys' disruptive and delinquent behavior.* Juvenile Justice Bulletin. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Kelley, B. Thornberry, T., & Smith, C. (1997). *In the wake of childhood maltreatment*. Juvenile Justice Bulletin. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Kirby, L., & Fraser, M. (1997). Risk and resilience in childhood. In M. W. Fraser (Ed.). *Risk and resilience in childhood*. Washington, DC: National Association of Social Workers (NASW) Press.

Lipsey, M., & Derzon, J. (1998). Predictors of violent or serious delinquency in adolescence and early adulthood: A synthesis of longitudinal research. In R. Loeber & D. Farrington (Eds.). *Serious and violent juvenile offenders: Risk factors and successful interventions*. Thousand Oaks, CA: Sage Publications.

Loeber, R. (2000, July). *Study group on very young offenders*. Paper presented at the Annual Conference on Criminal Justice Research and Evaluation, Washington, DC

Loeber, R. & Farrington, D. (Eds.). (1998). *Serious and violent juvenile offenders: Risk factors and successful interventions*. Thousand Oaks, CA: Sage Publications.

McGarvey, E., & Waite, D. (1999). *Profiles of incarcerated adolescents in Virginia correctional facilities: Fiscal years 1993-1998*. Richmond, VA: Virginia Department of Juvenile Justice.

Office of the Chief Medical Examiner, Virginia State Child Fatality Review Team. (1998). *Child fatalities in Virginia: 1994*. Richmond, VA.

U.S. Department of Commerce, U.S. Census Bureau, Housing and Household Economic Statistics Division. (1999). *Poverty thresholds in 1995, by size of family and number of related children under 18 years*. Available online at www.census.gov/hhes/poverty/threshld/thresh95.html

U.S. Department of Commerce, U.S. Census Bureau, Population Division. (August, 2000). *Population estimates for counties by age group: July 1, 1999*. Available online at www.census.gov/population/estimates/county/ca/cava99.txt

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. (1997). *Rates of homicide, suicide, and firearm-related deaths among children — 26 industrialized countries*. Available online at www.cdc.gov/epo/mmwr/preview/mmwrhtml/00046149.htm

Virginia Department of Criminal Justice Services, Criminal Justice Research Center. (2000a). *Evaluation of the Richmond City continuum of juvenile justice services pilot program* (Final report to the Chairs of the Senate Finance & House Appropriations Committees). Richmond, VA.

Virginia Department of Criminal Justice Services, Criminal Justice Research Center (2000b). *Report on survey of youth gang activity in Virginia*. Report of the Department of Criminal Justice Services to the Governor and General Assembly of Virginia, House Document No. 36. Richmond, VA.

Virginia Department of Criminal Justice Services, Juvenile Services Section. (2000). *Virginia's three-year plan, 2000-2002, Juvenile Justice and Delinquency Prevention Act* (Data Section). Richmond, VA. Available online at www.dcjs.state.va.us/juvenile/resources

REFERENCES *(Continued)*

Virginia Department of Education. Division of Assessment and Reporting. (2000). *Virginia State Assessment Program, 1999 Detail Report,* Table B, Stanford 9, Fall 1999 Division Results, National Percentile Ranks. Richmond, VA. Available online at www.pen.k12.va.us/VDOE/Assessment/VSAPreport/1999/

Virginia Department of Mental Health, Mental Retardation and Substance Abuse Services, Office of Research & Evaluation. (2001). Social Indicators Database. S*ubstance Use: Outcome, Juvenile drug possession, 1998*. (Electronic database). Available online at www.dmhmrsas.state.va.us/ORE/Prevention/SocialIndicators/Source/locality.asp

Virginia Department of Social Services, Child Protective Services. (2001). *Disposition by child, FY 1998-99*. Available online at www.dss.state.va.us/family/cpsfacts.html

Werner, E. (2000). Protective factors and individual resilience. In J. Shonkoff & S. Meisels (Eds.). *Handbook of early childhood intervention*. (2nd Ed.). Cambridge. Cambridge University Press.

Werner, E. (1993). Risk, resilience, and recovery: Perspectives from the Kauai longitudinal study. *Development and Psychopathology, 5,* 503-515.

Werner, E., & Smith R. (1992). *Overcoming the odds: High risk children from birth to adulthood*. Ithica, NY: Cornell University Press.

SUGGESTIONS FOR FURTHER READING

Coolbaugh, K., & Hansel, C. (2000). *The comprehensive strategy: Lessons learned from the pilot sites*. Juvenile Justice Bulletin. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Esbensen, F. (2000). *Preventing adolescent gang involvement*. Juvenile Justice Bulletin. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Garbarino, J. (1999). *Lost boys: Why our sons turn violent and how we can save them*. New York: The Free Press.

Grossman, J., & Garry, E. (1997). *Mentoring—A proven delinquency prevention strategy.* Juvenile Justice Bulletin. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Hawkins, J., Herrenkohl, D., Farrington, D., Brewer, D., Catalano, R., Harachi, T., & Cothern, L. (2000). *Predictors of youth violence*. Juvenile Justice Bulletin. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Kelley, B., Loeber, R., Keenan, K., & DeLamatre, M. (1997). *Developmental pathways in boys' disruptive and delinquent behavior.* Juvenile Justice Bulletin. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Kumpfer, K., & Alvarado, R. (1998). *Effective family strengthening interventions*. Juvenile Justice Bulletin. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention

Lipsey, M., Wilson, D., & Cothern, L. (2000). *Effective intervention for serious juvenile offenders*. Juvenile Justice Bulletin. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention

Sherman, L., Gottfredson, D., MacKenzie, D., Eck, J., Reuter, P., & Bushway, S. (1998). *Preventing crime: What works, what doesn't, what's promising*. Research in Brief. Washington, DC: U.S. Department of Justice, Office of Justice Programs, National Institute of Justice.

Simonson, J., & Maher, P. (2001). *Promising practices: Drug-free communities support program*. Fact Sheet. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Thornton, T., Craft, C., Dahlberg, L., Lynch, B., Baer, K. (2000). *Best practices of youth violence prevention: A sourcebook for community action.* Atlanta: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, U.S. Department of Health and Human Services.

U.S. Department of Health and Human Services. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; Substance Abuse and Mental Health Services Administration, Center for Mental Health Services; and National Institutes of Health, National Institute of Mental Health. (2001). *Youth violence: A report of the Surgeon General.* Washington, DC: U.S. Government Printing Office.

Wasserman, G., Miller, L., & Cothern, L. (2000). *Prevention of serious and violent juvenile offending*. Juvenile Justice Bulletin. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

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